

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference  TY04014PCT	<b>FOR FURTHER ACTION</b>  see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No.  PCT/JP2004/018328	International filing date (day/month/year)  02/12/2004	(Earliest) Priority Date (day/month/year)  02/12/2003
Applicant  TOYOTA JIDOSHA KABUSHIKI KAISHA		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. 3

☐ as suggested by the applicant.

☒ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/JP2004/018328

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01S5/14

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G01S

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<u>US 5 903 236 A</u> (LAWRENCE ET AL) 11 May 1999 (1999-05-11) column 3, line 32 - column 5, line 39; figures 1-3 -----	1-6, 10-17
X	<u>US 6 373 432 B1</u> (RABINOWITZ MATTHEW ET AL) 16 April 2002 (2002-04-16) column 5, lines 21-35; figures 1-3 column 15, line 2 - column 29, line 15 -----	13, 16
X	<u>US 6 127 968 A</u> (LU ET AL) 3 October 2000 (2000-10-03) column 17, line 66 - column 19, line 51; figure 1 ----- -/--	13, 16

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

2 March 2005

Date of mailing of the international search report

15/03/2005

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International Application No  
PCT/JP2004/018328

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p><u>US 5 502 641 A</u> (ISOMURA ET AL)  26 March 1996 (1996-03-26)  column 6, line 45 - column 10, line 31;  figures 1-5</p> <p>-----</p>	1,13-17
A	<p><u>US 2001/020216 A1</u> (LIN CHING-FANG)  6 September 2001 (2001-09-06)  paragraphs '0083! - '0096!; figures 5-11</p> <p>-----</p>	7-9

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/JP2004/018328

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5903236	A	11-05-1999	NONE	
US 6373432	B1	16-04-2002	AU 727360 B2 AU 6942398 A CA 2283904 A1 EP 0968577 A1 JP 2001523335 T WO 9843372 A1	14-12-2000 20-10-1998 01-10-1998 05-01-2000 20-11-2001 01-10-1998
US 6127968	A	03-10-2000	NONE	
US 5502641	A	26-03-1996	JP 7190769 A CH 693653 A5	28-07-1995 28-11-2003
US 2001020216	A1	06-09-2001	US 6278945 B1	21-08-2001